SECTION 6

6.04 SELECTION OF PIPE:

In general, selection of type of pipe shall be left to the discretion of the Professional Engineer in charge of design. However, Denver Water reserves the right to deny use of certain types of materials in specific circumstances.

Where joint restraint is required as described in these Standards, the designer shall select a pipe together with an approved system of restraint. It should be noted that installation of any metallic pipe, rods, clamps, etc. in corrosive soil areas will require corrosion protection systems.

Installation of mains through tunneled crossings such as at railroads, highways, canals, etc., will require the selection of metallic pipe with approved joint restraint systems. Bridge hangings will also require selection of metallic pipe with joint restraint.

Installation of mains at airports, through hazardous areas, at depths greater than 10 feet and in the roadways of State and Federal highways may require the selection of pressure classes in excess of the minimum stated in 6.03. Special comprehensive studies of applicable laws, regulations, and detailed engineering calculations shall be submitted for review by Denver Water in these instances.

Whenever the installation of metallic pipe is contemplated, a soil resistivity survey of the construction area must be performed. The survey data and calculations, together with the service history of other existing pipe in the area, must be submitted to Denver Water. Resistivity surveys shall utilize the Wenner four-pin method. Denver Water is willing to provide the resistivity surveys, free of charge, on request. This service will also be provided when installing non-metallic pipe in order to determine if protection is needed for metallic fittings and appurtenances.

When water mains are to be constructed in soils that have a resistivity of less than 1,000 ohm-centimeters, or where stray current corrosion is expected to be severe, an approved non-metallic pipe system shall be selected. When water mains are to be constructed in soils that have a resistivity of more than 1,000 ohm-centimeters, either metallic or non-metallic pipe material may be selected. All metallic pipe, joint restraint, fittings, tie rods and appurtenances, regardless of soil resistivity, shall be protected against corrosion by polyethylene wrap in accordance 8.24.

* See 10.06 for Special Class 50 alternate for 24 inch.